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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,340	08/21/2001	Roy T. Hashimoto	ERT-029	8147
22888	7590	06/15/2005	EXAMINER	
BEVER HOFFMAN & HARMS, LLP TRI-VALLEY OFFICE 1432 CONCANNON BLVD., BLDG. G LIVERMORE, CA 94550			FLETCHER, JAMES A	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/935,340

Applicant(s)

HASHIMOTO, ROY T.

Examiner

James A. Fletcher

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 22-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-18, 20 and 21 is/are rejected.
- 7) ☒ Claim(s) 5-7 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following informalities. Drawings 3A and 3B have packet labels of the form "T1|1," "T2|1," etc. After reading the specification, the examiner believes these packets should be labeled in the form of —T1U1—, —T2U2—, etc. Fig. 4B shows several packets having labels of T0P1, T1P1, and T2P1. The examiner believes the second set of these labels should read —T0P2—, —T1P2—, —T2P2—, etc.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 19 is objected to because of the following informalities: The claim recites "wherein the packet from the second compressed video stream..." The examiner believes the claim should read --wherein the first packet from the second compressed video stream...--. Appropriate correction is required.

The examiner also notes that with such an amendment, the claim would be objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Naimpally (5,619,337).

Regarding claim 1, Naimpally discloses a method of storing a video stream on a storage medium comprising:

- separating each group of pictures of a first compressed video stream into a first plurality of packets (Col 1, lines 12-20 "The MPEG-2 system standard, ISO/IEC HTC1/CS29/WG11 N0721, rev 10 Jun. 1994, which is hereby incorporated by reference for its teachings on MPEG-2 encoding, defines a

method of formatting and transmitting multiple digitally encoded programs, each including a video portion, an audio portion and a data portion. According to this standard, data representing multiple programs may be transmitted as a single time-division multiplexed transport stream" and Col 1, lines 21-23 "The basic unit of the transport stream is a transport packet. Each transport packet has a fixed length...and includes a header portion and a data portion");

- writing a first packet from the first plurality of packets to the storage medium (Col 3, lines 16-19 "the DVCR according to the present invention...records the packets in transport stream format");
- separating each GOP of a second compressed video stream into a second plurality of packets (Col 1, lines 21-23 "The basic unit of the transport stream is a transport packet. Each transport packet has a fixed length...and includes a header portion and a data portion"); and
- writing a first packet from the second plurality of packets to the storage medium (Col 3, lines 16-19 "the DVCR according to the present invention...records the packets in transport stream format").

Regarding claim 2, Naimpally discloses a method of storing a video stream on a storage medium wherein the first plurality of packets is written to the storage medium prior to writing the first packet from the second plurality of packets to the storage medium (Col 6, lines 38-40 "Each of the blocks labeled P0, P1 and P2 may include multiple transport packets for the particular program transport stream").

Regarding claim 3, Naimpally discloses a method of storing a video stream on a storage medium comprising writing a second packet from the first plurality of packets to the storage medium (Col 6, lines 38-40 "Each of the blocks labeled P0, P1 and P2 may include multiple transport packets for the particular program transport stream").

Regarding claim 4, Naimpally discloses a method of storing a video stream on a storage medium wherein the second packet from the first plurality of packets is written to the storage medium prior to writing the first packet from the second plurality of packets (Col 6, lines 38-40 "Each of the blocks labeled P0, P1 and P2 may include multiple transport packets for the particular program transport stream").

Regarding claim 15, Naimpally discloses a storage medium comprising:

- a first packet from a first compressed video stream, the first compressed stream including a first GOP and a second GOP (Col 5, lines 45-47 "The multiplexer 146 formats each of the PES packets into one or more transport packets, as defined in the MPEG-1 or MPEG-2 standard"), wherein a size of the first packet is less than a size of the first GOP (Col 1, lines 21-23 "The basic unit of the transport stream is a transport packet. Each transport packet has a fixed length...and includes a header portion and a data portion"); and
- a first packet from a second compressed video stream stored subsequent to the first packet from the first compressed video stream, the second compressed video stream including a third GOP (Col 5, lines 45-47 "The multiplexer 146 formats each of the PES packets into one or more transport packets, as defined in the MPEG-1 or MPEG-2 standard"), wherein a size of

the first packet from the second compressed video stream is less than a size of the third GOP (Col 1, lines 21-23 "The basic unit of the transport stream is a transport packet. Each transport packet has a fixed length...and includes a header portion and a data portion").

Regarding claim 16, a storage medium comprising a second packet from the first compressed video stream stored subsequent to the first packet from the second compressed video stream, wherein a size of the second packet from the first compressed video stream is less than a size of the second GOP (Col 6, lines 38-40 "Each of the blocks labeled P0, P1 and P2 may include multiple transport packets for the particular program transport stream").

Regarding claim 17, a storage medium wherein the first packet from the first compressed video stream is located before the first packet from the second compressed video stream on the storage medium (Col 6, lines 38-40 "Each of the blocks labeled P0, P1 and P2 may include multiple transport packets for the particular program transport stream").

Regarding claim 18, a storage medium wherein the second packet from the first compressed video stream is located before the first packet from the second compressed video stream on the storage medium (Col 6, lines 38-40 "Each of the blocks labeled P0, P1 and P2 may include multiple transport packets for the particular program transport stream").

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-14 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naimpally.

Regarding claims 8 and 9, Naimpally fails to disclose a method of storing a video stream on a storage medium wherein the first plurality of packets comprises a quantity of a given value or range of values.

The examiner takes official notice that a stream or package of data can be divided into any particular number of divisions of any size determined convenient to the designer, and is therefore a design choice.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Naimpally in order to specify a specific number or range of numbers of packets.

Regarding claims 10 and 11, Naimpally discloses a system for writing video data on a storage medium comprising:

- a packetizer for disassembling a first group of pictures of a first track into a first plurality of packets and a second GOP of a second video track into a second plurality of packets (Col 5, lines 45-47 "The multiplexer 146 formats each of the PES packets into one or more transport packets, as defined in the MPEG-1 or MPEG-2 standard");

- a video interleaver for combining packets from the first plurality of packets with packets from the second plurality of packets in an interleaved fashion into an interleaved video stream (Col 3, lines 54-56 "The multiplexer 116 reformats and interleaves the transport packets for the individual single-program transport streams into a multi-program transport stream"); and
- Naimpally discloses storage of the recorded interleaved video streams on a tape (Col 3, lines 13-14 "The present invention is embodied in a digital video cassette recorder")

The examiner takes official notice that disks, including DVDs, are well known, commercially available, and widely used formats for storing virtually all forms of digital data.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Naimpally to disclose a disk or DVD writer for storing the interleaved video stream onto the storage medium.

Regarding claim 12, Naimpally discloses a system for writing video data on a storage medium wherein the video interleaver adjusts the interleave rate based on the amount of data present in each stream (Col 4, lines 6-9 "The controller responds...by changing the effective rate at which the respective program streams P0 and P1 appear in the output transport stream"), but does not specifically state a particular first number of packets from the first plurality of packets prior to incorporating a second number of packets from the second plurality of packets.

The examiner takes official notice that, in a dynamically allocated multiplexed bit stream, the number of packets from each input stream will vary with time, meeting the recited limitation above.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Naimpally to note a number of packets being recorded from each stream.

Regarding claims 13 and 14, Naimpally are not specific on the number of packets being stored from each stream.

The examiner takes official notice that the number of packets contiguously stored from each stream may be dynamically allocated, and may be set up in whatever quantity the designer deems best for the particular application, and is therefore a design choice.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Naimpally to note a number of packets being recorded from each stream.

Regarding claims 20 and 21, Naimpally discloses a storage medium wherein the first packet from the first compressed video stream has the same size as the second packet from the first compressed video stream (Col 1, line 22 "Each transport packet has a fixed length [i.e. 188 bytes]").

The examiner would like to note that the above rejected claims read on scenarios where virtually any quantity of transport packets, including complete or even multiple GOPs, are interleaved on recording. As the examiner understands the invention, the

intent is to contiguously record segments of data that are generally smaller than a GOP in the streams. Amending the independent claims accordingly would overcome the cited reference without changing the spirit of the invention.

The examiner would also like to note that GOPs are inherently divided into smaller elements, being a "group" of pictures. This division of GOPs could include blocks, macroblocks, or even pixels.

Allowable Subject Matter


7. Claim 5-7 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (571) 272-7377. The examiner can normally be reached on 7:45-5:45 M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAF
May 20, 2005


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